

## 6.0 Financial Capability Assessment

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### 6.1 Introduction

Financial capability is a significant factor affecting a community's CSO long-term control plan (LTCP). According to U.S. EPA's 1994 *CSO Guidance for Long-Term Control Plan*:

As part of LTCP development, the ability of the municipality to finance the final recommendations should be considered. The CSO Control Policy<sup>1</sup> "...recognizes that financial considerations are a major factor affecting the implementation of CSO controls...[and]...allows consideration of...financial capability in connection with the [LTCP] effort...and negotiation of enforceable schedules." The CSO Control Policy also specifically states that "...schedules for implementation of the CSO controls may be phased based on...financial capability."<sup>2</sup>

This section describes the methodology and results of applying U.S. EPA's financial capability process to the Indianapolis long-term control plan. The focus of this effort is to estimate the cost per household for Indianapolis' customers, assess how that cost will compare to future household income, and then determine and discuss financial capability factors set forth in the U.S. EPA guidance document. This guidance document is not binding and the resulting analysis may not fully capture the fiscal stress and/or ability of Indianapolis residents to fund CSO controls. The city has projected future revenue requirements and associated rates, taking into account current costs to operate the city's system, how those costs will change over time, existing debt service, and future debt service resulting from anticipated and identified capital improvements. The city's planning horizon for evaluating the impacts of the LTCP exceeds 20 years.

The city has developed its financial projections consistent with the way it will develop rate projections, with expenses, revenues and capital costs stated in future year dollar terms. Thus, household bills in 2015 reflect what the city estimates households will actually pay in that year. For purposes of

the affordability analysis, these future household rates are compared to projected household incomes in those specific years. This is consistent with the approach used by a number of other municipal sewer agencies. The approach keeps all cost figures on a consistent basis and gives the city a realistic picture of actions required to raise needed revenue.

In developing these projections, the city has sought to estimate the future burden of the CSO program in addition to the full wastewater system's long-term needs, as currently understood by the city. The city has evaluated the impact of the long-term control plan and other wastewater needs by estimating long-term revenue requirements and then estimating typical household sanitary sewer costs based on estimated rates. The residential indicator is based on that average annual cost per household relative to projected median household income for each year over the forecast period.

### 6.2 Key Assumptions

The key assumptions used to develop these projections are:

- Using U.S. Census data for the Consolidated City best captures the city's retail service area. Most customers outside the Consolidated City are served through wholesale contracts, which hinder the ability of the city to readily pass through rate increases and where the wholesale customer has little or no responsibility for combined sewers. See Section 6.3.1 for further discussion of the Consolidated City and wholesale customers.
- Based on a review of historical flow data, the city does not anticipate increases in billable flows over the forecast period due to the historic trend of commercial and industrial conservation measures being implemented as rates increase. But the city does anticipate that the number of households connected to the system will increase slowly as the city moves forward with septic conversions, and experiences limited infill of undeveloped areas.
- Labor costs for the existing system are projected to increase at an average annual rate of 2.5 percent, except for the period from 2008 to 2018, when they are expected to increase at 4.5 percent. The period 2008 to 2018 is anticipated to be a peak construction period in the Indianapolis area. The city anticipates increased labor price competition due to concurrent and significant infrastructure programs occurring in the city during this period, which will increase costs beyond industry standard escalation. Pension costs are assumed to increase at a 5.8 percent rate. Contract operations costs are assumed to increase at a 4 to 6 percent an-

<sup>1</sup> 59 Fed Register, 18688

<sup>2</sup> U.S. EPA, Office of Water, EPA 832-B-95-002, September 1995, p. 3-66.



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nual rate, consistent with the city's history under the existing agreements. In addition, it is assumed that there will be a step up in costs of approximately 5 percent at the time operations contracts are renewed, based upon experience with these types of operational contracts.

- Capital costs are projected to increase consistent with the 25-year average national Engineering News Record (ENR) construction cost index. However, during the peak construction period of 2008 to 2018, the city assumes that the costs will increase at 2 percent per year above the historical national ENR index due to the very high anticipated level of construction.
- The city's repair and replacement and capital maintenance activities are assumed to increase over time, reflecting the increased attention the systems will require as they age.
- The city's capital improvement program assumes that the city will move forward during the forecast period with the following plans and projects: LTCP, the Large and Mid-Diameter Combined Sewer Master Plans, the Sanitary Sewer Master Plan, the Basin Master Plan, septic conversion program, as well as other projected wastewater improvements and maintenance needs within the collection system and at the city's two treatment plants. The current estimated cost of this capital improvement program (CIP) is approximately \$5.5 billion at the time of construction, including LTCP costs. The above costs do not include the costs of complying with state and federal stormwater management requirements, which are expected to become more stringent during the 20-year planning period.
- The city assumes that it will finance this CIP with a combination of State Revolving Fund (SRF), revenue bonds and 'pay-as-you-go' funds. The city is hoping to obtain SRF financing for 10 percent of this CIP. Over the 20-year LTCP implementation period, the city has assumed that all debt issued will have a term of 20 years with an average interest rate of 6.0 percent.

- Consistent with revenue bond requirements, it is assumed that the city will set rates to comply with a debt service coverage ratio of 130 percent. This has no impact on future rates, since the revenues generated through coverage are used to fund pay-as-you-go capital and other system expenses.
- Operating and maintenance costs for new infrastructure were incorporated based on projects that would directly result in new system components or improved performance. These costs were summarized into five major categories: labor, power, chemicals, infrastructure, and materials and supplies. The indexed annual costs were synchronized with the capital program implementation schedule and were compared to historical expenses and published rates for accuracy and consistency.
- Revenue projections for this Financial Capability Assessment rely on the city's current rate policy and structure and assume that the share of revenues derived from industrial and commercial customers remains stable, despite a history of declines in base flow over time.

The total capital needed by the City of Indianapolis over the next 20 years is estimated at nearly \$5.5 billion (future dollars) to fund both CSO improvements required by this LTCP and other projected wastewater collection and treatment needs. The details of the long-term control plan are described in Section 7.0 of this report. For purposes of the financial capability analysis, the city analyzed LTCP Plan 1 at 97 percent capture on Fall Creek and 95 percent capture on the remaining streams, implemented over 20 years. The total capital needed for the LTCP is estimated at \$1.6885 billion in current dollars or \$2.459 billion in future dollars (**Table 6-1**).

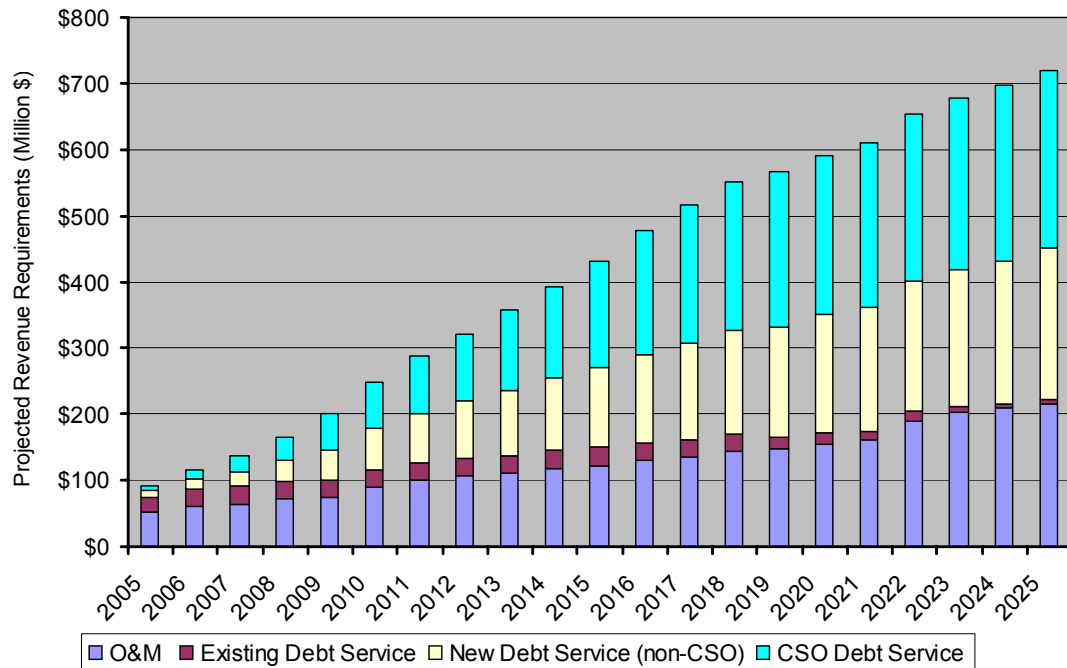
The Wastewater Improvements CIP assumes that the city implements the various master plans that have been prepared for the city, together with other wastewater improvement and maintenance needs. These include unspent por-

**Table 6-1**  
**CIP Capital Costs by Program**

Capital Program	Present Dollar Value (2004 dollars)	Future Dollar Value (at time of construction)
<b>Long-Term Control Plan</b>	\$1.6885 billion	\$2.459 billion
<b>Wastewater Improvements CIP</b>	\$1.546 billion	\$2.548 billion
<b>Septic Tank Elimination Program</b>	\$319 million	\$474 million



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**Figure 6-1**  
**Projected Revenue Requirements**

tions of the Sanitary Sewer Master Plan, the Large and Mid-Diameter Combined Sewer Master Plans, Basin Master Plan and other projected capital improvements and maintenance needs at the AWT plants and collection system. Since the costs published in the various master plans were developed at different times, all costs were converted to a common dollar base (2004 dollars). The total remaining capital need for the Wastewater Improvements CIP is estimated at \$1.6885 billion in current dollars or \$2.459 billion in future dollars (**Table 6-1**). Finally, the city is assumed to accelerate extension of sanitary sewers to replace the approximately 18,000 failing septic systems within the retail service area.

The total capital needed for the first 18,000 homes in the Septic Tank Elimination Program is estimated at \$319 million in current dollars or \$474 million in future dollars (**Table 6-1**).

## 6.3 Projected Revenue Requirements, Financing and Rate Impacts

**Figure 6-1** displays the projected revenue requirements for the wastewater system over the forecast period.

For the period 2005 to 2015, the average annual increase in revenue requirements will exceed 18 percent. On average, through the end of 2025, the city's revenue requirements will increase by approximately 12 percent per year. As the figure shows, new debt service to ensure the long-term integrity of the system and LTCP compliance causes the great-

est increases in revenue requirements. CSO debt service will increase from less than 5 percent of total revenue requirements in 2005 to nearly 30 percent in 2025. Similarly, debt service to fund ongoing improvements to the existing sanitary system is projected to increase from 25 percent of the existing revenue requirement to more than 50 percent.

### 6.3.1 Impact on Future Rates and Affordability

The city's current rate structure includes both a minimum charge per month and a volume-based charge. The volume-based charge is allocated among retail customers based on metered water consumption. (A small number of retail customers do not have centralized water service, and therefore pay a flat rate). Each wholesale contract has been negotiated on a case-by-case basis, over time; and has a different rate, rate structure methodology and process for adjusting those wholesale charges to reflect changes in the cost of service. Furthermore, the city does not control how retail rates are set inside the wholesale customer's service area. While the city has assumed that wholesale customers will pay a proportionate share of the increased costs, this assumption may prove to be optimistic.

The 2005 baseline city retail rate consisted of a monthly billing charge of \$2.39 and a commodity rate of \$1.33 per 1,000 gallons. There was also a minimum charge, such that no customer paid less than \$6.40 per month. For the average residential customer using approximately 64,800 gallons per year, the annual bill in 2005 was approximately \$115 per year.



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Residential bills are projected to increase by an annual average exceeding 12 percent during the LTCP implementation period. The City-County Council approved a new rate structure on Oct. 31, 2005, that will raise rates approximately 29 percent annually in the years 2006-2008.

Under the U.S. EPA guidance, a key measure of affordability is the Residential Indicator: the ratio of the wastewater cost per household to median household income (MHI). The Residential Indicator is compared to EPA-defined criteria to determine whether costs impose a low, mid-range or high impact on residential users. **Figure 6-2** shows U.S. EPA's Residential Indicator criteria, which define a "low" impact as a cost per household less than 1.0 percent of MHI, a "mid-range" impact between 1.0 and 2.0 percent, and "high" impact as greater than 2.0 percent of MHI. For the forecast period, the residential indicator for Indianapolis is projected over time in **Figure 6-3**.

**Figure 6-3** presents the data for three "classes" of households. The first is the Consolidated City, which best represents the city's retail service area. As described earlier in Section 5.0, the consolidation of city and county governments in Marion County left four "excluded cities" that retained some local control. Marion County also contains an independent conservancy district (Ben Davis). Lawrence, Beech Grove and the Ben Davis Conservancy District have wholesale contracts with the City of Indianapolis for sewage treatment services. Southport does not own its collection or treatment systems. Its residents are simply billed as retail customers of the Indianapolis sewer system. The fourth excluded city, Speedway, operates its own sewage collection system and wastewater treatment plant. Several smaller communities outside Marion County also receive wholesale sewage treatment services from the City of Indianapolis. **Figure 6-4** provides a map of Marion County, showing the excluded cities, Ben Davis Conservancy District, township boundaries and out-of-county wholesale customers. U.S. Census data for the Consolidated City includes all of Marion County except the excluded cities of Lawrence, Beech Grove, Southport and Speedway.

**Figure 6-3** also shows residential indicators for the median household in Center Township and for a household at or below the poverty level. The Residential Indicator and financial impact on these low-income segments of the service area are significantly greater than they are for the consolidated city service area as a whole.

For the median Consolidated City household, the residential indicator will increase from below 0.5 percent in 2005 to nearly 1.0 percent by 2010 and over 1.5 percent by 2018. This median household will bear a sewer bill exceeding 1 percent of income for 13 years of the forecast period. For

Center Township, the city's most populous township, the residential indicator will grow from approximately 0.5 percent in 2005 to approximately 1.30 percent by 2010 and over 2.5 percent (high impact) by 2018. For poverty-level households, the situation is more severe. The residential indicator will rise from nearly 1 percent in 2005 to over 4 percent in 2018.

Based on these projections and using the U.S. EPA guidance, the city anticipates that the residential burden will reach the high end of the medium burden range for the service area's median household in or about 2018. That burden level is projected to persist through the end of the forecast period (2025) and beyond. For the other classes of the city's residential base (Center Township and poverty level households), the burden is projected to be well within the high burden category beginning in approximately 2014 for Center Township and 2010 for poverty-level households. That burden will remain throughout the forecast period and a significant period after December 2025.

The city believes that these projections are reasonable. However, they assume that the share of billable flow allocated to residential customers will remain flat and that wholesale customers will pay a proportionate share of the cost increases. The projections also assume that the share of revenues generated from industrial and commercial customers remains stable, despite a history of declines in base flow over time. Finally, these projections are subject to actual construction costs, which may vary from the city's current projections.

## 6.3.2 Impacts of Future Competition and Inflation of Capital Costs

Program affordability may be negatively impacted if inflation of the capital costs increases dramatically during this 20-year timeframe. Based on currently available plans, the regional construction market will face significant competition given the large amount of public and private construction anticipated to occur. The city believes this will result in significant price increases for technical services, construction workers, materials and supplies in excess of that in the national construction market. The anticipated level of construction is summarized in **Figure 6-5**. Significant projects include:

- Indianapolis Airport Expansion
- Interstate 465 rehabilitation/reconstruction
- Interstate 69 construction
- New sports stadium/convention center expansion
- Market Square Arena site residential/commercial development
- Indianapolis Rapid Transit investments

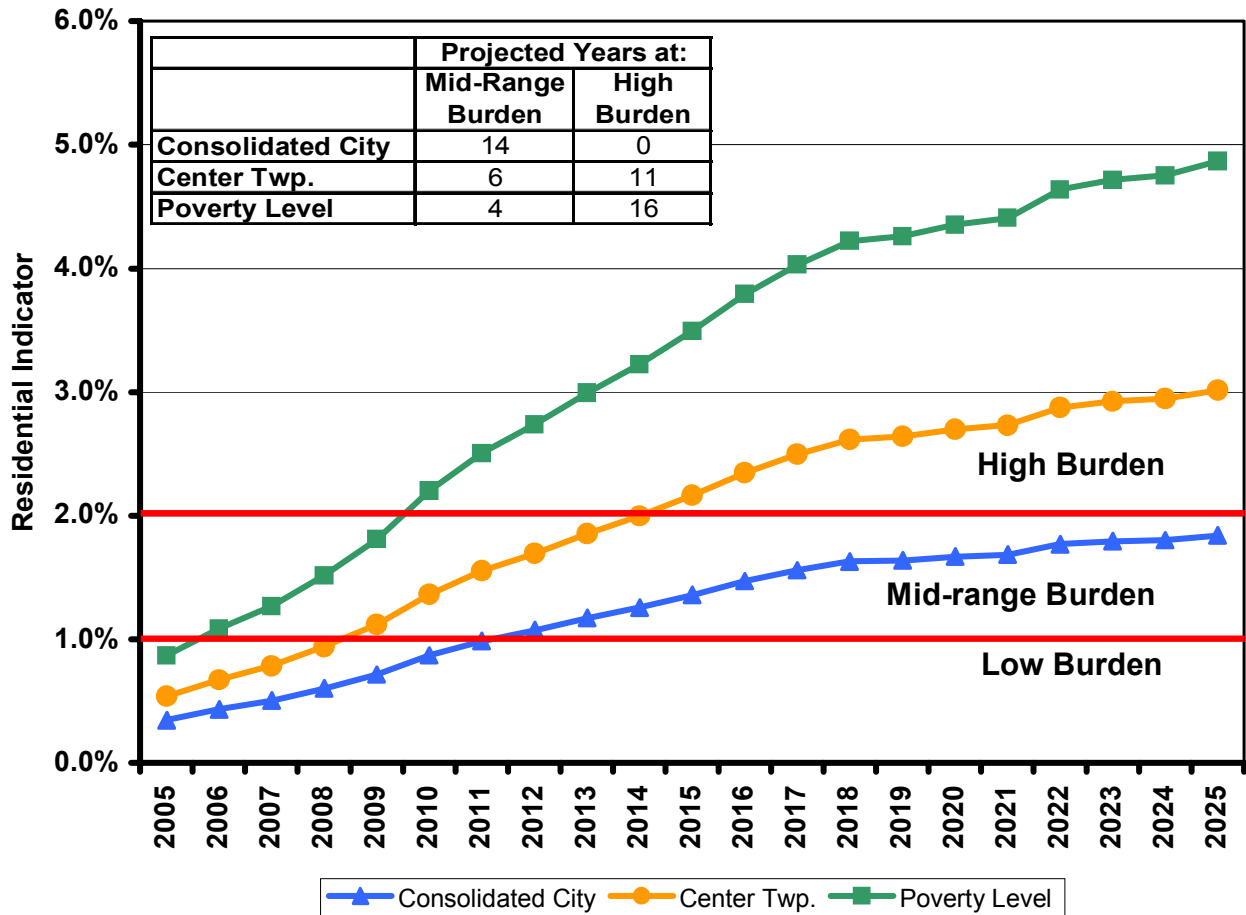


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Financial Impact	Cost per Household
Low (3)	Less than 1.0 percent of MHI
Mid-Range (2)	1.0 - 2.0 percent of MHI
High (1)	Greater than 2.0 percent of MHI

Note: Low impact equates to strong financial capability; high impact equates to weak financial capability.

**Figure 6-2**  
**Residential Indicator Criteria - U.S. EPA Guidance**

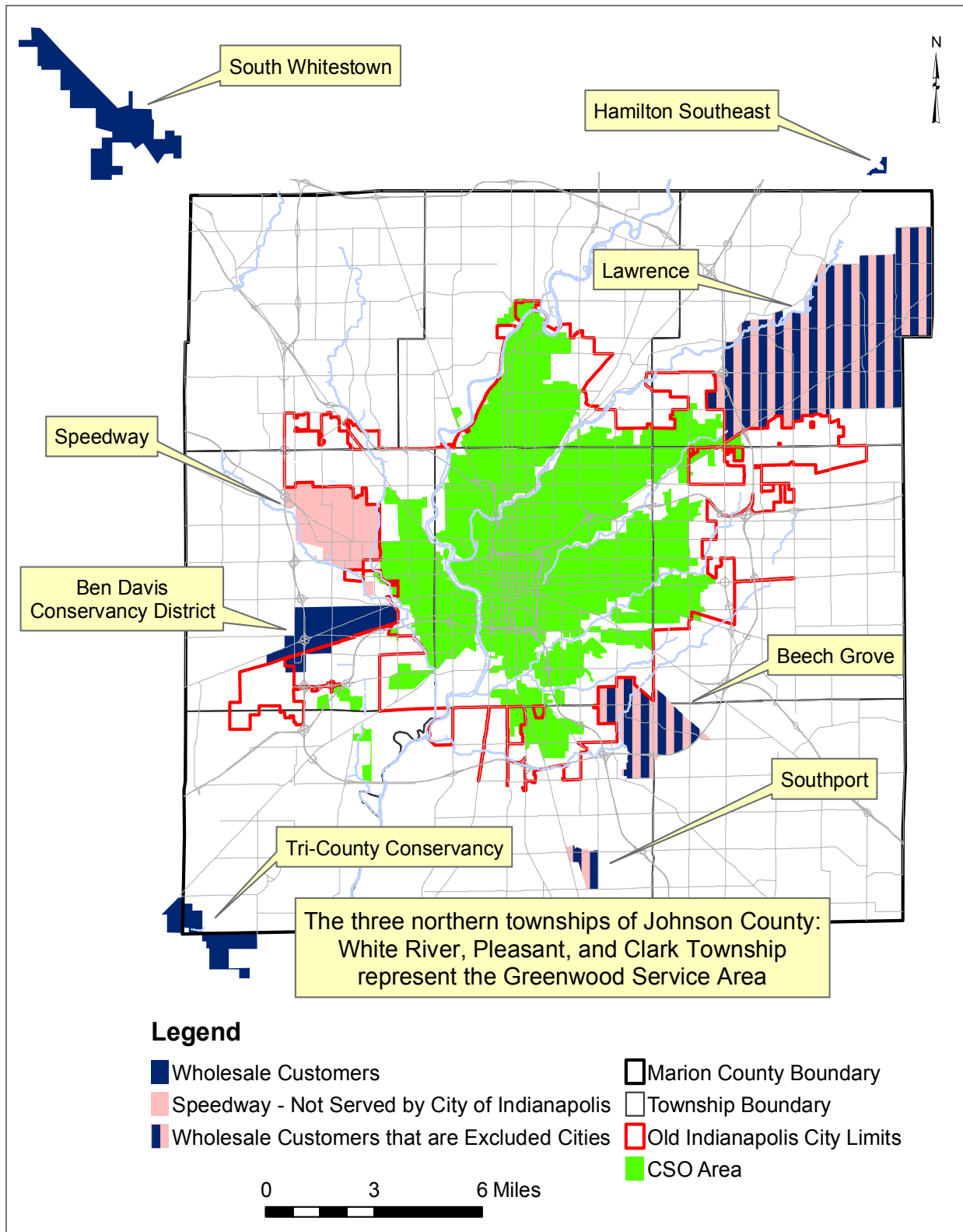


**Figure 6-3**  
**Residential Indicator, 2005-2025**  
**Recommended Plan, 20-Year Implementation**





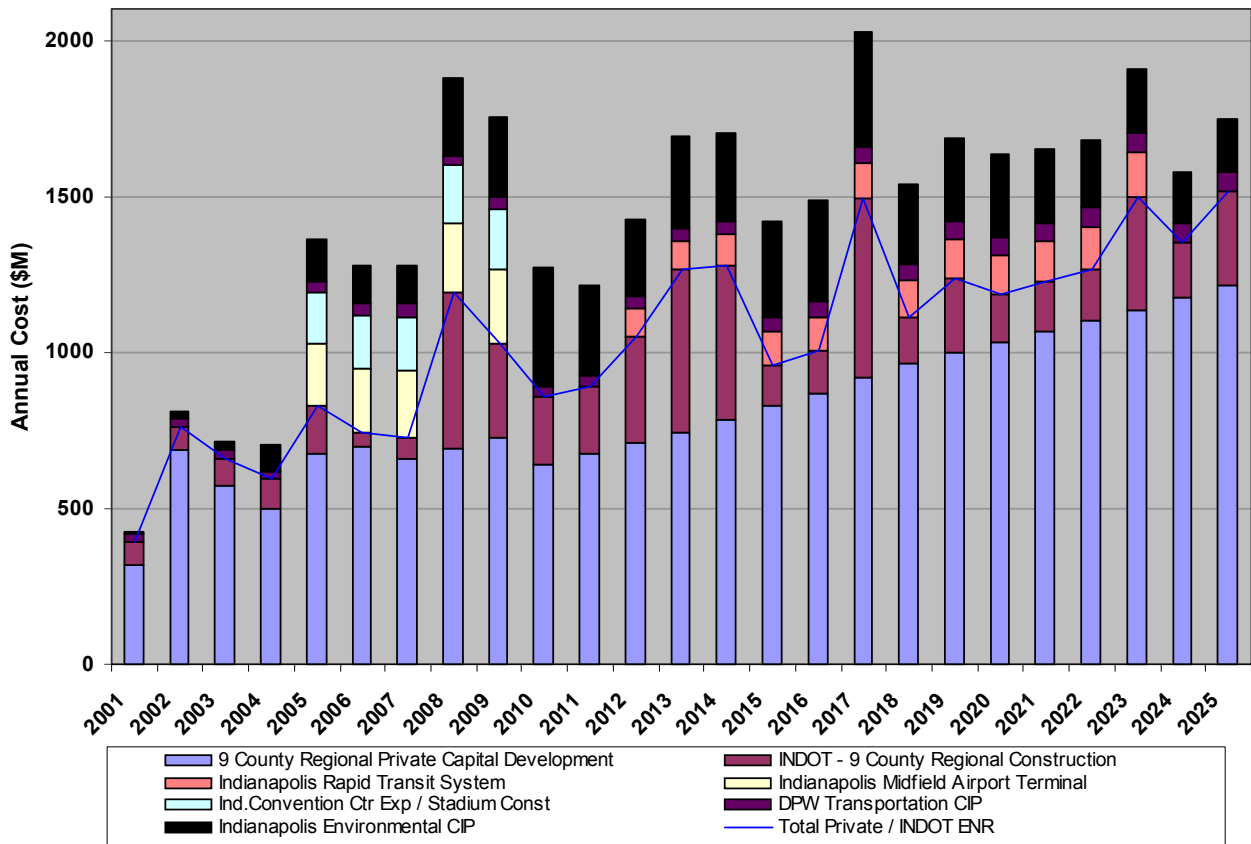
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**Figure 6-4**  
**Wholesale Customers**



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Notes:

Costs shown on this chart are expressed in terms of estimated Engineering News Record Construction Cost Index (ENRCCI) over the 20-year project period.

**Figure 6-5**

**Indianapolis Regional Major Capital Investment Programs / Projects 2001 - 2025  
(20-year ENR Indexed)**

These projects are in addition to standard infrastructure expenditures in the sectors of roads and bridges, transit and water. The volume of work generated by these projects, along with the city's CSO, sanitary, and transportation programs, will stretch local construction firms to the limits of their equipment and manpower resources. As seen in **Figure 6-5**, construction spending is projected to increase from the historical average of approximately \$650 million per year in 2001-04 to more than \$1.5 billion per year – nearly tripling on an annual basis.

In addition, the city is concerned that the large number of CSO programs underway at the same time in the Midwest will stretch the specialized construction resources associated with these types of programs. The concern is especially true for tunneling-related activities. **Table 6-2** shows eight Midwestern cities that have estimated CSO control programs totaling approximately \$10.6 billion. This is in addition to

**Table 6-2**  
**Midwest Cities' CSO Control Programs:**  
**Estimated Costs**

City	Estimated CSO Control Program (\$Billion)
Cincinnati	\$1.50
Toledo	\$0.80
Detroit	\$1.40
Cleveland	\$1.60
Akron	\$0.40
Columbus, Ohio	\$1.50
Youngstown	\$0.40
Pittsburgh	\$3.00



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the City of Indianapolis's CSO program, and excludes the 103 other CSO plans being implemented by smaller Indiana communities.

Given this high concentration of similar programs in the region, the city expects considerable regional competition for engineering and construction resources. Construction resources can be the most critical component for achieving required implementation schedules.

Given the large amount of anticipated construction and the concentration of CSO-related programs, as well as similar impacts in other areas of the country, the city believes that its capital costs will increase faster than the historic national ENR index. Therefore, these projections assume that capital costs will increase at a rate two percentage points higher than the projected national ENR index during the period 2008 to 2018. In addition, the city anticipates upward pressure on its labor costs for operating and maintaining the sewer system and has assumed that these costs will increase at a rate two percentage points higher than the consumer price index during the same time period.

## 6.3.3 Financing Assumptions

The projections of burden and the residential indicator are extremely sensitive to assumptions regarding debt. The city has assumed that it will finance its program with a combination of state revolving fund loans and city-issued revenue bonds. The city is assuming that this debt will carry a weighted average interest rate of 6.0 percent with 20-year debt. This assumption is extremely sensitive to:

- The proportion of debt actually placed with the SRF
- Actual market rates over the forecast period

The city's projections assume that the city will fund 10 percent of its CIP through the SRF at an average interest rate of approximately 4.75 percent. This would amount to roughly \$25 million per year in SRF loan funding, which is consistent with information provided to the city by representatives of the Indiana SRF program. If the city obtains less than the 10 percent that is assumed, actual rates will increase from current estimates.

The city is also assuming that over the 20-year implementation period, market interest rates do not increase significantly from current levels, and that its general obligation bond rating will not drop below AAA. The weighted average rate of 6.0 percent provides a cushion of approximately 100 to 125 basis points above current market rates. The city acknowledges that in the short term this interest rate assumption is conservative. However, current rates are at historically low levels. Given recent Federal Reserve Board

actions, it is clear that rates will be moving up, not down. If the weighted average rates were to increase to 7.0 percent from the current assumption of 6.0 percent, the average cost per household could increase by approximately \$60 per year.

## 6.3.4 Grant Availability

Although Indianapolis will pursue available grant programs, the city's financial analysis does not rely on significant grants to fund CSO controls. The amount of grant funding that may become available is expected to be relatively minor in comparison to the projected capital expenditures for the program. The city encourages the State of Indiana to issue substantial grants for CSO abatement projects, as has been the practice in other states. We also call on Congress to halt the federal disinvestment in grants and loans for municipal wastewater projects.

## 6.3.5 Income Growth

The city has assumed that incomes in the service area will continue to grow at their historical rate relative to inflation. The city believes that this is an aggressive assumption given changing demographics and other factors impacting income. These are discussed in more detail in the next section.

## 6.4 U.S. EPA Financial Capability Analysis

U.S. EPA Guidance documents set forth an approach for evaluating financial capability. This section presents the results of that assessment, including replicas of the worksheet/forms contained in the U.S. EPA Guidance. It is important to understand that since the CSO program will most likely be funded by revenue bonds and not general obligation bonds, most of these indicators do not reflect the financial capability of issuing revenue bonds.

The assessment is performed in two phases. Phase 1 determines the "Residential Indicator," described earlier, and Phase 2 develops the "Permittee Financial Capability Indicators," which include six indicators in the sub-categories of Debt Indicators, Socioeconomic Indicators, and Financial Management Indicators.

The U.S. EPA guidance also encourages a community to include additional factors or alternative assessment methods in assessing its financial capability and negotiating the CSO program implementation schedule. Therefore, the city has provided some supplemental information below related to population, employment and property tax reassessments.

As noted earlier, the city's retail service area is essentially the same as the Indianapolis Consolidated City boundaries





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**Table 6-3**  
**Cost Per Household**  
**U.S. EPA Guidance Worksheet 1**

Row	Item	Unit	Peak
	Residential share of total wastewater treatment and CSO costs		
107	Total Revenue Requirement in Peak Year	(\$)	\$ 718,370,000
	Current Revenue Requirement	(\$)	\$65,586,000
	Total Increase	%	995.31%
	2005 Monthly bill	(\$)	\$ 9.57
	2005 Annual bill	(\$)	\$ 114.84
109	Projected Annual Cost per Household ("CPH")	(\$)	\$ 1,258

shown on **Figure 6-4**. All data, unless specifically noted, is for the Indianapolis Consolidated City.

## 6.4.1 Phase One: The Residential Indicator

The city's methodology and projections described in Sections 6.1 through 6.3 set forth the calculations for the residential indicator.

### 6.4.1.1 Cost Per Household

Cost per household is summarized in **Table 6-3**.

As described in Section 6.1, the city's projection of the cost per household is a rates-based methodology. That is, the city projects total revenue requirements throughout the forecast period, estimates future rates and then estimates the cost per household based on per-dwelling unit annual water consumption of 65,000 gallons (this estimate is derived from the city's billing records). The determining factors are the revenue requirements and total billable flow. The city is assuming that the volume of billable flow remains relatively constant and that the average consumption per household remains at 65,000 gallons per year.

**Table 6-4** calculates the Consolidated City's Residential Indicator: cost per household as a percentage of median household income. As a result of this process, the city has determined that the selected plan (Plan 1-storage/conveyance) at 95/97 percent capture would create a medium burden on residents in the Consolidated City, according to U.S. EPA's definitions.

### 6.4.1.2 Sub-Area Consideration

The Consolidated City is the city's retail service area, where it has direct control over the rates charged for wastewater

service. Like most urbanized areas in the United States, the city has experienced a loss of population, income and employment to surrounding communities.

**Table 6-5** shows that Center Township has the largest proportion of households at or below poverty level in the service area. Based on historical trends, the city anticipates that this concentration will continue.

**Table 6-5** also shows that 9 percent of households in Indiana live at or below the poverty level, compared to 12 percent in Indianapolis and 24 percent in Center Township. The national percentage is 12.4 percent.

U.S. Census data show that the Indianapolis Consolidated City population grew 6 percent and the number of households grew 9 percent between 1990 and 2000. During this same period, the Center Township population declined about 9 percent and households declined 6 percent, while some other townships showed vigorous growth. However, Center Township continues to be the most populous township, with 159,527 people and 21 percent of the city's households. During this same time period, the Indiana population grew 9 percent and the national population grew 12 percent, indicating that the Consolidated City is lagging behind the state as well as the nation in growth.

Center Township residents, on average, have lower incomes and will experience more economic hardship associated with the CSO Program. The median household income in Center Township in 1999 (latest Census) was \$26,435, compared to \$40,154 for Indianapolis consolidated city, as shown in **Table 6-5**. The cost per household divided by the lower MHI yields a higher peak year Residential Indicator for Center Township: 2.92 percent vs. 1.78 percent for Indianapolis as a whole. This places residents in Center Township in the high burden category.



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**Table 6-4**  
**Residential Indicator**  
**U.S. EPA Guidance Worksheet 2**

Row	Item	Unit	Indianapolis Value
	Median household income ("MHI")		
	Census year MHI		
	Census year		2000
201	MHI	(\$)	\$ 40,154
	MHI adjustment		
	Adjustment Factor for 2004	(unit)	1.115
	Adjusted MHI 2004		\$ 44,772
	Analysis year		2025
202	Annual Adjustment factor 2004 to 2025	(unit)	2.20
203	Adjusted MHI	(\$)	\$ 70,705
204	Annual cost per household (line 109)	(\$)	\$ 1,258
205	Residential indicator		
	CPH as a percentage of adjusted MHI	(%)	1.78%
Financial capability score			2

**Table 6-5**  
**Median Household Income and the Poverty Level**

	Households: Median Household Income in 1999	Population Above Poverty Level	Population at or Below Poverty Level	Total Population Counted	Percent of Population at or Below Poverty Level
<b>Center</b>	\$ 26,435	120,671	38,856	159,527	24%
<b>Decatur</b>	\$ 45,690	22,970	1,451	24,421	6%
<b>Franklin</b>	\$ 58,482	30,885	1,120	32,005	3%
<b>Lawrence</b>	\$ 49,246	101,085	9,860	110,945	9%
<b>Perry</b>	\$ 42,378	84,660	6,247	90,907	7%
<b>Pike</b>	\$ 47,250	65,593	4,942	70,535	7%
<b>Warren</b>	\$ 39,672	84,208	8,240	92,448	9%
<b>Washington</b>	\$ 47,079	118,722	10,241	128,963	8%
<b>Wayne</b>	\$ 37,554	115,679	14,870	130,549	11%
<b>Indianapolis City</b>	\$ 40,154	681,833	91,163	772,996	12%
<b>State of Indiana</b>	\$ 41,567	5,334,811	559,484	5,894,295	9%



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## 6.4.2 Phase Two: Permittee Financial Indicators

In the Phase 2 assessment, financial capability is determined by factors assessing a community's financial health and ability rather than by the residential financial burden estimated in Phase 1. The Phase 2 assessment computes six benchmarks, two in each of the following subcategories:

- Debt Indicators,
- Socioeconomic Indicators, and
- Financial Management Indicators.

**Figure 6-6** shows U.S. EPA Financial Capability Benchmarks used to evaluate the six indicators. The benchmarks are shown in the left-hand column. A value of "3", "2", or "1" is assigned to a benchmark whose value assessments are "strong," "mid-range," or "weak," respectively.

### 6.4.2.1 Debt Indicators

The two Debt Indicators are Bond Rating and the Overall Net Debt as a percent of full market property value in the city's service area.

#### 6.4.2.1.1 Bond Rating

This indicator is intended to address a community's general capacity to undertake debt. In January 2005, Standard & Poor's and Moody's Investors Service both rated the city's general obligation credit to be AAA: Negative Outlook. The

agencies were concerned about the city's current operating deficit and the growing unfunded pension liability.

Overall the outstanding debt of the city is rated to be sound, and this indicator is considered strong by U.S. EPA criteria, as shown in **Table 6-6**. Standard & Poor's rated the city's revenue bonds AA in December 2004. The city's Sanitary District has outstanding General Obligation and revenue bonds and SRF loans. The 2003 revenue bonds were rated by Fitch Ratings and Standard & Poor's and received a AAA rating based on bond insurance. The SRF loans are rated AA by Standard & Poor's and, in some cases, also by Fitch.

#### 6.4.2.1.2 Net Debt

Net debt is the amount of tax-backed bond debt for all taxing units, including the City of Indianapolis, Marion County, townships, libraries, and schools, that is not supported by revenue from user fees.

Information from the January 19, 2005 research report by Moody's Investors Service was used to develop **Table 6-7**. According to Moody's, the net direct debt as of January 2005 for the City of Indianapolis was \$867,475,000. The overlapping debt of the other taxing units attributable to the residents and businesses in the city was \$1,439,320,000. Moody's used the assessed value of property in the consolidated city from the 2004 Comprehensive Annual Financial Report statistical section. Because the percent ratio of

Indicator	Strong (3)	Mid-Range (2)	Weak (1)
Bond Rating	AAA-A (S&P) or Aaa-A (MIS)	BBB-A (S&P) or Baa-A (MIS)	BB-D (S&P) or Ba-C (MIS)
Net Debt/Property Value	Below 2%	2% - 5%	Above 5%
Unemployment Rate	>1% below National Ave.	±1% of National Ave.	>1% above National Ave.
Median Household Income	>25% above adj. Nat'l MHI	±25% of adj. Nat'l MHI	>25% below adj. Nat'l MHI
Property Tax/Property Value	Below 2%	2% - 4%	Above 4%
Prop. Tax Collection Rate	Above 98%	94% - 98%	Below 94%

**Figure 6-6**  
**Permittee Financial Capability Indicator Criteria**  
**U.S. EPA Guidance**



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**Table 6-6**  
**Bond Rating**  
**U.S. EPA Guidance Worksheet 3**

Row	Item	Value
	<b>Most recent general obligation bond rating</b>	
	Date	2005
	Rating agency	Standard & Poor's / Moody's
301	Rating	AAA / Aaa
	<b>Most recent revenue bonds</b>	
	Date	2004
	Rating agency:	S&P
	Bond insurance	no
302	Rating	AA
	Financial capability score	3

**Table 6-7**  
**Overall Net Debt as a Percent of Full Market Property Value**  
**U.S. EPA Guidance Worksheet 4**

Row	Item	Unit	Value
401	Direct net debt	(\$)	\$ 867,475,000
	(tax-supported debt)		
402	Debt of overlapping entities	(\$)	\$ 1,439,320,000
	(Proportionate share of multijurisdictional debt)		
403	Overall net debt	(\$)	\$ 2,306,795,000
404	Market value of property (Consolidated City)	(\$)	\$39,047,432,000
405	Overall net debt as a percent of full market property value	(\$)	5.91%
	Financial capability score		1

All numbers are based on data from Moody's Investor Services and appear in Moody's January 19, 2005 report.



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net debt to property value is in excess of 5 percent, this indicator is considered weak by U.S. EPA criteria, as shown in **Table 6-7**.

## 6.4.2.2 Socioeconomic Indicators

The two Socioeconomic Indicators are Unemployment Rate and Household Income.

### 6.4.2.2.1 Unemployment Rate

The Unemployment Rate indicator is shown in **Table 6-8**. The Indianapolis monthly unemployment rate for 2004 was 5.63 percent, according to the U.S. Department of Labor, Bureau of Labor Statistics. The national unemployment rate was 5.50 percent and the State of Indiana's was 5.1 percent.

Because local unemployment is between one percentage point more than or less than the national unemployment rate benchmark, this indicator is considered mid-range, according to U.S. EPA criteria.

**Table 6-9** shows employment increases and decreases in Indianapolis for various industries between 1990 and 2000. **Figure 6-7** shows the loss of employment from some key Indianapolis employers during the past four years due to closures and downsizing. The transportation decreases are predominantly related to the airline cutbacks.

### 6.4.2.2.2 Household Income

The Household Income indicator is related to the Residential Indicator in that both consider MHI. While the Residential Indicator compares MHI with the cost per household, here the Household Income indicator compares MHI with national MHI as a benchmark measurement of relative wealth or poverty as of the date of the General Census. Both

MHI calculations are adjusted to 2025 numbers.

The MHI shown in **Table 6-10** is the same value used in **Table 6-4** for the Residential Indicator. National MHI is adjusted by the same factor, also as shown in **Table 6-10**.

Because local MHI is more than 75 percent of national MHI and less than 25 percent greater than national MHI, this indicator is judged to be mid-range and assigned a value of "2" according to the U.S. EPA benchmark criteria.

## 6.4.2.3 Financial Management Indicators

The two Financial Management indicators are Property Tax Revenues and Tax Collection Efficiency. Property tax revenues are collected by multiple taxing jurisdictions for residents within the consolidated city, including the City of Indianapolis, Marion County, the libraries, Marion County Health and Hospital Corporation, the townships, and the school districts.

### 6.4.2.3.1 Property Tax Revenues as Percent of Full Market Value

In the city's service area, property tax revenues collected in the 2004 fiscal period were \$1,135.5 million. Property value shown in **Table 6-11** is about \$36.8 billion. This information was obtained from the Marion County Auditor's Office, based on the Certified Assessed Valuations provided by the Indiana Department of Local Government Finance.

The calculated property tax revenue indicator for the city's service area is between 2 and 4 percent, suggesting a mid-range local financial capability under the U.S. EPA criteria.

In December 1998, the Indiana Supreme Court ruled that the state's method of property tax assessment was unconstitutional and required that the state implement a more market-based approach to valuation. The new rules for assessment

**Table 6-8**  
**Unemployment Rate**  
**U.S. EPA Guidance Worksheet 5**

Row	Item	Unit	Value
501	Unemployment rate of permittee	(%)	5.63%
	Source: Indianapolis Consolidated City, Bureau of Labor Statistics		
	Benchmark:		
503	Average national unemployment rate	(%)	5.50%
	Comparison of permittee with benchmark	(%)	(0.13%)
	Financial capability score		2

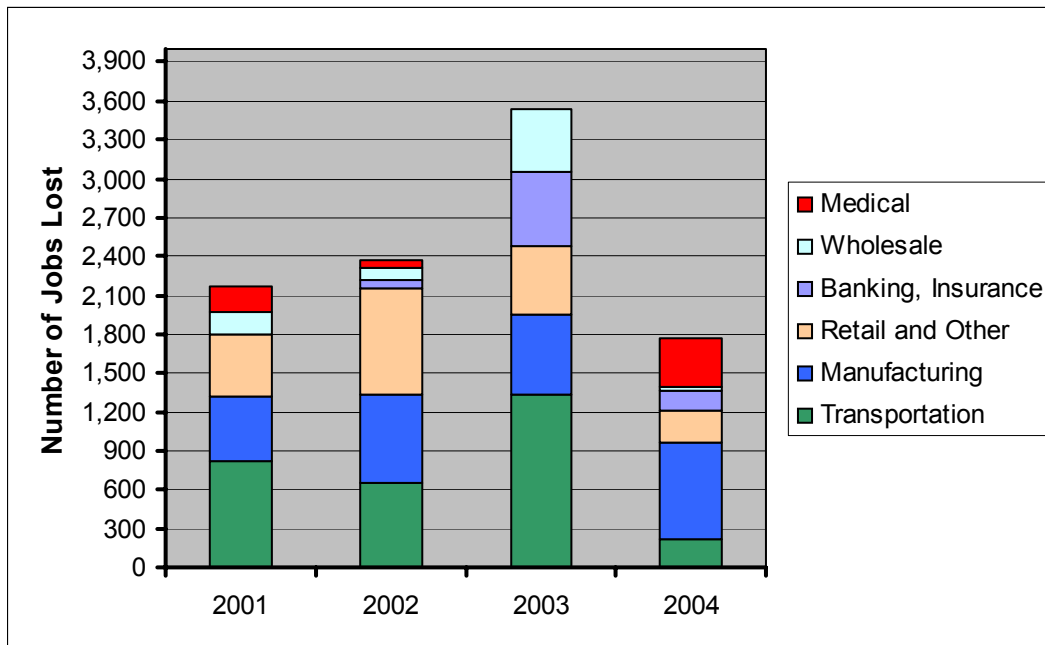




# Financial Capability Assessment

**Table 6-9**  
**Employed Persons by Industry for Indianapolis**

Industry	1990	2000	Percent Increase/Decrease in Jobs
Construction	19,754	24,719	20%
Manufacturing; nondurable goods	59,100	53,730	-10%
Wholesale trade	18,854	17,465	-8%
Retail trade	65,800	47,514	-38%
Transportation	18,678	22,753	18%
Communications and other public utilities	10,759	13,601	21%
Finance; insurance; and real estate	32,830	34,173	4%
Professional; scientific; management; administrative; and waste management services	19,976	37,813	47%
Professional and related services; educational services	24,408	24,873	2%
Professional and related services; health services	36,585	48,619	25%
Entertainment and recreation services, food service	16,926	34,014	50%
Other professional and related services	26,344	20,096	-31%
Public administration	18,431	16,899	-9%
<b>Total</b>	<b>368,445</b>	<b>396,269</b>	<b>7%</b>



**Figure 6-7**  
**Jobs Lost 2001-2004**



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**Table 6-10**  
**Median Household Income**  
**U.S. EPA Guidance Worksheet 6**

Row	Item	Unit	Value
601	MHI of permittee (line 203)	(\$)	\$ 70,705
	Benchmark:		
602	Census year national MHI	(\$)	\$ 41,994
603	MHI adjustment factor to 2025	(unit)	176%
604	Adjusted national MHI	(\$)	\$ 73,909
	Compare permittee with benchmark		-4.34%
	Financial capability score		2

**Table 6-11**  
**Property Tax Revenues as Percent of Full Market Property Value**  
**U.S. EPA Guidance Worksheet 7**

Row	Item	Unit	Value
701	Full market value of real property (Certified Assessed Value, Payable 2004)	(\$)	\$ 36,808,011,015
702	Property tax revenue (paid in 2004)	(\$)	\$ 1,135,502,840
703	Property tax revenue as a percentage of full market property value	(%)	3.08%
	Financial capability score		2

were implemented in 2003, resulting in a substantial shift in tax burden from business to residential taxpayers.

In 2002, the Indiana General Assembly adopted a significant tax reform package, including provisions to phase out certain business personal property taxes, place caps on certain local tax levies, and institute property tax relief measures for homeowners to mitigate the impact of the new assessment methodology. As a result of the combined impact of reassessment, appeals and tax reform, the city has seen a real decline in both assessed value and property tax revenue.

#### 6.4.2.3.2 Tax Collection Efficiency

The final U.S. EPA Financial Guidance Phase 2 indicator is the rate of property tax collection. The 2004 property tax collection rate presented in **Table 6-12** represents the current taxes collected divided by property taxes levied for the Consolidated City. These amounts were provided by the Marion County Auditor's Office.

In the city's service area, tax collection efficiency is 102.79 percent. Because this figure is above 98 percent, it is indica-

tive of a strong financial capability and receives a score of "3." However, the 102.79 percent efficiency rate includes collections for delinquent taxes. Without delinquencies, the collection rate in 2004 was 97.17 percent, which would result in a mid-range score of "2."

#### 6.4.2.4 Summary of Phase 2 Indicators

The values and scores of the six Phase 2 Evaluation indicators are compared in **Table 6-13**. Overall, the unweighted average score for the Phase 2 Evaluation is 2.167.

#### 6.4.3 Summary of Financial Capability Indicators

The Phase 1 Residential Indicator has a value of 1.84 percent of adjusted MHI and the Phase 2 Permittee Financial Capability Indicators have an unweighted average of 2.167, as shown in **Table 6-14**. These two converge on the Financial Capacity Matrix (**Figure 6-8**) and indicate a medium burden for the service area. However, due to the lower MHI in Center Township, residents in this area face a high burden.



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**Table 6-12**  
**Property Tax Revenue Collection Rate**  
**U.S. EPA Guidance Worksheet 8**

	Item	Unit	Value
801	Property tax revenue collected (Consolidated City, 2004)	(\$s)	\$ 1,135,502,840
802	Property taxes levied (Consolidated City, 2004)	(\$s)	\$ 1,104,723,892
803	Property tax revenue collection rate (includes delinquent taxes)	(%)	102.79%
	Financial capability score		3

**Table 6-13**  
**Summary of Financial Capability Indicators**  
**U.S. EPA Guidance Worksheet 9**

Row	Item	Value	Score
901	Bond rating	AAA / Aaa	3
902	Net debt percent of property value	5.91%	1
903	Unemployment rate compared with national average	(0.13%)	2
904	Median household income compared with national average	-4.34%	2
905	Property tax revenue percent of property value	3.08%	2
906	Property tax revenue collection rate	102.79%	3
907	Permittee indicator score		2.17

**Table 6-14**  
**Financial Capability Matrix Score**  
**U.S. EPA Guidance Worksheet 10**

Row	Item	Value	Score
1001	Residential indicator score	1.78%	mid-range
1002	Permittee financial capability indicators score	2.17	mid-range
1003	Financial capability matrix category	medium burden	



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Permittee Financial Capability Indicators Score (Socioeconomic, Debt & Financial Indicators)	Residential Indicator (Cost Per Household as a percentage of MHI)		
	Low Burden (below 1.0%)	Mid-Range (between 1.0 and 2.0%)	High (greater than 2.0%)
Weak (below 1.5)	Medium Burden	High Burden	High Burden
Mid-Range (between 1.5 and 2.5)	Low Burden	Medium Burden	High Burden
Strong (above 2.5)	Low Burden	Low Burden	Medium Burden



Service Area-wide indicates a medium burden.



Center Township indicates a high burden.

**Figure 6-8**  
**Summary of Financial Capability Indicators: U.S. EPA Guidance**

## 6.5 Summary

Implementing the long-term control plan will place a financial and economic burden on the City of Indianapolis. During the next 20 years, the city's wastewater revenue requirements will increase by approximately 12 percent per year, on average. This will significantly impact industrial, commercial and residential sewer rates. The impact on disadvantaged residents in Center Township and those living below the poverty level also must be considered. Based upon U.S. EPA guidance, the residential burden for the retail service area will reach the medium burden category. In Center Township and for people living below poverty, the burden will fall into the high burden category.

Following U.S. EPA's guidance document, the city is facing a medium to high burden, which is an important factor in the plan's implementation schedule of 20 years. A more aggressive schedule is impracticable for constructability reasons and would further increase the financial burden on residential customers.

Based upon this analysis, the city has selected a level of control for the Plan 1 systemwide alternative and developed a 20-year implementation schedule. The selected plan's individual components, projected costs and benefits, and implementation schedule are further described in Section 7.

